Application No.: 09/601,515 Docket No.: 20162-00564-US

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions in the application:

Listing of Claims:

1. (Currently amended) An acoustic effect apparatus for boosting an output signal of a bass musical instrument comprising

an input for receiving the output signal of the bass musical instrument;

bandpass filter means coupled to the input for selecting a frequency band of ~~the audio~~ an audio output signal;

distortion applying means coupled to the bandpass filter means for applying a non-linear distortion to the selected frequency band signal;

adding means coupled to the input and the distortion applying means for deriving a sum of the input audio signal and the output signal from the distortion applying means; wherein

said bandpass filter means has a low frequency cut-off frequency which is in a range of 50 to 300Hz, and a high frequency cut-off frequency which is in a range of 200 to 450Hz and passes only a double-numbered overtone component of the desired fundamental tone of the bass musical instrument and suppresses the signal frequencies lower than or equal to the fundamental tone as well as the signal frequencies above the double-numbered overtone thereby selecting components corresponding to the double-numbered overtone component;

said distortion applying means having an S-shaped non-linear input-output response defined by a curve which has no point symmetry with respect to a reference point of an input and an output function and applies non-linear distortion to the components thus passed by the band-pass filter means to thereby generate harmonics of double-numbered overtone frequencies, thereby boosting the even-numbered overtone of the fundamental tone of the bass musical instrument.

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2. (Previously presented) An acoustic effect apparatus according to Claim 1 in which the filter means has a cut-off frequency response on the bass side which has a frequency response to allow a fundamental tone component of the bass musical instrument to be delivered at a reduced level.

3 (Previously presented) An acoustic effect apparatus according to Claim 2 in which the cut-off frequency response on the bass side of the filter means is chosen to be on the order of +12dB/OCT.

4. (Previously presented) An acoustic effect apparatus according to Claim 1 in which the filter means has a cut-off frequency response on the higher pitch side which is steeper than the cut-off response on the bass side.

5. (Previously presented) An acoustic effect apparatus according to Claim 4 in which the cut-off frequency response on the higher pitch side of the filter means is on the order of - 24dB/OCT or steeper.

6. Cancelled

7. (Currently amended) An acoustic effect apparatus according to Claim 6 1 in which the filter means has a cut-off frequency on the bass side which is substantially equal to 200Hz and a cut-off frequency on the higher pitch side which is substantially equal to 400Hz.

8. (Previously presented) An acoustic effect apparatus according to one of Claims 1, 2, 3, 4, 5 or 7 in which the filter means comprises a high pass filter having a cut-off frequency which is equal to the cut-off frequency on the bass side, and a low pass filter having a cut-off frequency which is equal to the cut-off frequency on the higher pitch side.

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9. (Previously presented) An acoustic effect apparatus according to Claim 8 in which the high pass filter frequency response has a small peak formed on a shoulder located adjacent to the cut-off frequency of its amplitude-frequency characteristic curve.

10. (Previously presented) An acoustic effect device according to one of Claims 1, 2, 3, 4, 5 or 7 in which the filter means comprises a bandpass filter.

11. (Previously presented) An acoustic effect device according to one of Claims 1, 2, 3, 4, 5 or 7, further comprising means for changing the cut-off frequency of the filter means.

12. Cancelled

13. Cancelled

14. (Previously presented) An acoustic effect apparatus according to Claim 1 in which the distortion applying means comprises a transistor having a collector, to which an output from the filter means is fed, and an emitter which delivers an output signal, and means for setting up a base current of the transistor, the distortion applying means utilizing a non-linear response occurring adjacent to the zero point of the collector current-collector-emitter voltage response of the transistor.

Claims 15-35 cancelled.

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